

REMARKS

The following remarks are in response to the Office Action mailed on December 27, 2006. Claims 1-20 are pending in this Application.

Claims 1, 2, 7, 9 and 14-16 stand rejected as being anticipated under 35 U.S.C. § 102(e) by U.S. Patent No. 6,554,781 (hereinafter "Carter"). Claims 4 and 6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Carter in view of U.S. Patent No. 5,826,578 (hereinafter "Curchod"). Claims 3, 5, 8, and 10-13 are objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form to include all of the limitations of the rejected base claim and any intervening claims. Finally, claims 17-20 are allowed.

Response is hereby made to each of the above-noted rejections and objections.

Indication of Allowable Subject Matter in Claims 3, 5, 8, 10-13 and 17-20.

As a preliminary matter, Applicant wants to thank the Examining Attorney for the indication of allowable subject matter in claims 3, 5, 8, 10-13 and 17-20. Applicant respectfully requests that the objections as to form of claims 3, 5, 8 and 10-13 be held in abeyance until the issue of allowable subject matter is finally resolved.

Request to Withdraw Finality of Current Outstanding Office Action.

This application is an RCE of Applicant's earlier Application No. 10/799,334. In the current outstanding

Office Action, the Examining Attorney stated that all of the claims in the RCE "are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office Action if they had been entered in the earlier application." The Examining Attorney made the current outstanding Office Action final as a result.

Applicant respectfully disagrees with the finality of the current outstanding Office Action. More specifically, the claims in the RCE could not have been finally rejected on the grounds and art of record in the next Office Action if they had been entered in the earlier application. For this reason, it was improper to make the current outstanding Office Action final.

On June 26, 2007, Applicant's attorney, Joseph W. Byrne, contacted the Examining Attorney by telephone to discuss this issue. During the telephone conference, Applicant's attorney and the Examining Attorney reached an agreement that it was indeed improper to have made the current outstanding Office Action final. In accordance with that agreement, and pursuant to the Examining Attorney's instructions, Applicant is hereby making a formal request that the finality of the current outstanding Office Action be withdrawn and that the current outstanding Office Action be made non-final.

Rejection of Independent Claims 1 and 15 under 35 U.S.C. § 102(e) as being Anticipated by Carter.

Independent claims 1 and 15 as currently presented each recite that the claimed invention include a first sensor "mounted to the elongated member" and "disposed to

monitor flexion and extension motion of the patient's spine in the midsagittal plane" and a second sensor "mounted to the elongated member" and "disposed to monitor lateral motion of the patient's spine in the frontal plane." Carter simply does not teach or suggest a device having these limitations.

Carter does describe a monitoring device having an elongated member and first and second sensors for monitoring respectively sagittal motion (e.g., flexion and extension motion) and lateral motion of a patient's spine (see col. 17, lines 15-65 and Figs. 20-22). The sagittal and lateral motion sensors of Carter are not, however, mounted to the elongated member as required by independent claims 1 and 15.

More specifically, the sagittal and lateral motion spine monitoring device 105 taught by Carter includes a backing plate 106 for adhesive attachment of the monitoring device to a patient. An elongated member 107 (e.g., cantilever) is coupled to the backing plate 106 via a transverse pivot 110, a resilient rotational coupling 111 and a pair of resilient lateral couplings 112.

A pair of sensors 114 and 115 are disposed to monitor sagittal motion of the patient's spine. Unlike the claimed invention of claims 1 and 15, however, Carter teaches that these sensors are mounted to backing plate 106 and not to elongated member 107. To further support this, Carter teaches the existence of a coupling pad between the sensors and the elongated member to absorb longitudinal or sliding movement of the elongated member relative to the sensors (see the sensor/elongated member configuration which is shown in Fig. 3 and described at col. 11, lines 30-33 of Carter as follows - "Displacements D_s and D_a are sensed by a force sensor, coupled to the cantilever by a coupling pad

which absorbs any longitudinal movement (ie sliding) and thus prevents wear of the force sensor").

In addition to the sagittal motion sensors 114, 115 described above, the monitoring device of Carter also includes a pair of lateral motion sensors 116 and 117 disposed to monitor lateral motion of the spine. Carter explicitly states that sensors 116 and 117 are mounted on backing plate 106 and not on elongated member 107 (see col. 17, lines 30-35 which reads as follows - "The lateral movement results in displacement of the cantilever on the resilient lateral couplings 112, causing interaction with a pair of force sensors 116 and 117 with forces F3 and F4 respectively, the sensors 116 and 117 being mounted on respective supports 120 on the backing plate 106"). Furthermore, Carter also makes it explicitly clear that sensors 116 and 117 are mounted on backing plate 106 to detect displacement of elongated member 107 via resilient lateral couplings 112 which are disposed between sensors 116 and 117 and elongated member 107.

In conclusion, because Carter does not teach or suggest a device for monitoring sagittal and lateral motion of a patient's spine having first and second sensors mounted to the elongated member as required by claims 1 and 15, Carter does not anticipate claims 1 and 15.

Rejection of Dependent Claims 2, 7, 9, 14 and 16 under 35 U.S.C. § 102(e) as being Anticipated by Carter.

Claims 2, 7, 9, 14 and 16, which all depend from an allowable base claim, each add one or more limitations to the base claim from which they each depend. Each of claims 2, 7, 9, 14 and 16 are therefore narrower in scope than the

allowable base claim from which they depend and are also allowable. Furthermore, notwithstanding that each of claims 2, 7, 9, 14 and 16 are allowable as depending from an allowable base claim, each of these claims is also allowable because each of these claims contain one or more limitations which patently distinguishes it over the prior art.

Rejection of Dependent Claims 4 and 6 under 35 U.S.C. § 103(a) as being unpatentable over Carter in view of Curchod.

Claims 4 and 6, which each depend from an allowable base claim, each add one or more limitations to the base claim from which they each depend. Each of claims 4 and 6 are therefore narrower in scope than the allowable base claim from which they depend and are also allowable.

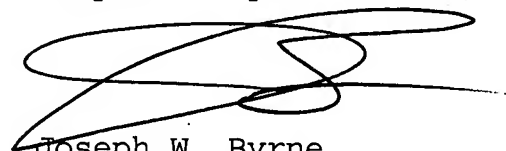
Furthermore, notwithstanding that each of claims 4 and 6 are allowable as depending from an allowable base claim, each of these claims is also allowable because each of these claims contain one or more limitations which patently distinguishes it over the prior art. For example, with respect to claim 4, neither Carter nor Curchod teach or suggest the use of an optical sensor in a spine monitoring device. Similarly, claim 6 as currently presented specifically recites that the claimed invention include "a computer in electrical communication with the second sensor, wherein the computer includes a display having a cursor, wherein the second sensor controls movement of the cursor, and further wherein the computer interprets the position of the cursor to graphically show lateral movement of the patient's spine on the display." Neither Carter nor Curchod teach or suggest such a limitation. For these reasons as well, it would not have been obvious to combine the

teachings of Carter with the teachings of Curchod to arrive at the claimed inventions of dependent claims 4 and 6.

CONCLUSION

Accordingly, in view of the above arguments and remarks, Applicant respectfully submits that the application should be allowed. The Examiner is invited to telephone the undersigned below if it will aid in the prosecution of this application.

Respectfully submitted,



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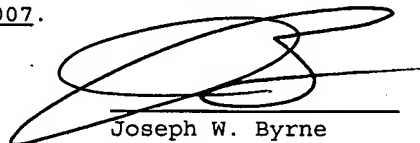
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Date: June 27, 2007



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